

Virginia Electric and Power Company

Order No. EA-180

I. BACKGROUND

Exports of electricity from the United States to a foreign country are regulated and require authorization under section 202(e) of the Federal Power Act (FPA) (16 U.S.C. §824a(e)).

On April 9, 1998, Virginia Electric and Power Company ("Virginia Power") applied to the Office of Fossil Energy (FE) of the Department of Energy (DOE) for authorization to transmit electric energy to Canada. Virginia Power is an investor-owned public utility which owns generation, transmission and distribution facilities in Virginia and North Carolina.

Virginia Power proposes to transmit electric energy to Canada that is surplus to its system or purchased from other sources. The energy to be exported would be delivered to Canada over the international electric transmission facilities owned and operated by the following:

Basin Electric Power Cooperative	Maine Public Service Company
Bonneville Power Administration	Minnesota Power & Light Company
Citizens Utilities Company	Minnkota Power Cooperative
The Detroit Edison Company	New York Power Authority
Eastern Maine Electric Cooperative	Niagara Mohawk Power Corp.
Joint Owners of the Highgate Project	Northern States Power Company
Maine Electric Power Company	Vermont Electric Transmission Co.

Notice of the Virginia Power export application was placed in the Federal Register on April 28, 1998, (63 FR 23278) requesting that comments, protests, and petitions to intervene be submitted to the DOE by May 28, 1998. None were received.

II. DISCUSSION and ANALYSIS

The authority requested of DOE by Virginia Power is a necessary condition for exporting under section 202(e) of the FPA. Virginia Power must make the necessary commercial arrangements, including obtaining all necessary transmission access required to wheel the exported energy to the foreign purchaser, and obtain any and all other regulatory approvals which may be required in order to effect the export. In considering Virginia Power's request for service, the transmitting utilities would have to assess the electric reliability impacts of moving the export through their system and, presumably, would only provide service under terms and conditions that would not cause reliability problems on their system.

An export authorization issued under section 202(e) does not impose on transmitting utilities a requirement to provide service. However, DOE expects transmitting utilities owning border facilities to provide access across the border in accordance with the principles of comparable open access and non-discrimination contained in the FPA and articulated in Federal Energy Regulatory Commission (FERC) Order No. 888, as amended (Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities). The actual rates, terms and conditions of transmission service shall be consistent with the non-discrimination principles of the FPA and the transmitting utility's Open Access Transmission Tariff on file with the FERC.

All recipients of export authorizations, including owners of border facilities for which Presidential permits have been issued, are required by their export authorization to conduct operations in accordance with the principles of the FPA and pertinent rules, regulations and orders, which include the comparable open access provisions of FERC Order No. 888, as amended. Cross-border electric trade ought to be subject to the same principles of comparable open access and non-discrimination that apply to transmission in interstate commerce. (See FERC Order On Complaint issued October 4, 1996 (Docket EL96-74-000)). Thus, DOE expects owners of border facilities to comply with the same principles of comparable open access and non-discrimination that apply to the domestic interstate transmission of electricity.

Before an electricity export authorization is granted, DOE must find that the proposed export will not impair the sufficiency of electric supply within the U.S. and that it will not impede the coordinated use of regional transmission facilities. DOE has always used a flexible approach in determining the information necessary to evaluate reliability impacts for specific export proposals. In determining reliability impact for exports by power marketers or other entities operating in a similar manner, DOE has used a combination of established industry guidelines, operating procedures and/or infrastructure, as well as technical studies supporting authorizations issued for traditional entities operating at the border. Allowing these existing technical studies to suffice in this docket is sound and, thus, DOE need not perform additional reliability assessments here, provided the maximum rate of transmission for all exports through a border system does not exceed the previously authorized limit of the system.

However, this approach is applicable only for exports over international transmission facilities for which export authorizations have been issued and for which reliability studies have been performed. Several of the international transmission lines over which Virginia Power seeks export authority are owned and operated by the New York Power Authority (NYPA) and the Bonneville Power Administration (BPA).

As an instrumentality of the State of New York, NYPA is non-jurisdictional to section 202(e) of the FPA. Consequently, DOE never issued NYPA an export authorization or prepared a reliability assessment which could have been used to limit the instantaneous rate of transmission (power) for exports over NYPA's international transmission lines. Thus, in lieu of that, DOE is utilizing the information contained in the report entitled, "Load & Capacity Data, 1995 Report of

the Member Electric Systems of the New York Power Pool.” This report is prepared and filed with the New York Public Service Commission pursuant to section 6-106 of the Energy Law of New York State. It will be made part of the record in this proceeding and included in the public docket. Section IX of this report lists the transmission transfer capabilities between the New York Power Pool (NYPP)¹ and surrounding electric systems, including Hydro-Quebec and Ontario Hydro. Since all of the major transmission interconnections between NYPP and Ontario Hydro are operated in parallel, it is appropriate to consider a single export power limit for this “electrically logical” grouping of lines. Accordingly, the transfer capability between NYPP and Ontario Hydro (as identified in Section IX of the above report) has been used (paragraph B(13) of this Order) to limit the instantaneous transmission rate for exports by Virginia Power over all international transmission lines connecting NYPA with Ontario Hydro. A separate limit (paragraph B(12) of this Order) has been assigned for exports over NYPA’s 765-kV tie with Hydro-Quebec because of the asynchronous nature of that interconnection.

As a Federal agency, BPA also is non-jurisdictional to section 202(e) of the FPA. Consequently, BPA was never issued an export authorization which DOE could have used to set power limits for exports by Virginia Power over BPA’s international transmission ties with Canada. However, DOE has obtained information from BPA on the transmission limits assigned to the two 500-kV and the two 230-kV lines connecting the BPA system with British Columbia Hydro and West Kootenay Power for operation in the export mode. This information has been made a part of this Docket. It has been used by DOE in setting limits on the power to be exported by Virginia Power over the BPA international transmission lines (paragraph B(14) of this Order).

Virginia Power requested and is being authorized to export electricity over the transmission facilities of some border utilities whose export authorizations still contain limits on the total amount of energy that can be exported by these utilities. These energy limits no longer have any direct relevance to the way DOE addresses electric reliability. DOE expects to initiate a future proceeding regarding the removal of these limits.

However, DOE recognizes the potential inequity of retaining energy limits on certain exporters while currently authorizing marketers, or other entities operating in a similar manner, to export unlimited amounts of energy. Until the above proceeding is completed, exports by power marketers or other entities operating in a similar manner will be constrained by the same energy limits, except exports by such entities will not reduce or be “charged against” those energy limits contained in the original export authorization.

¹ New York Power Pool is an association of NYPA and the seven major investor-owned electric utilities in New York State. NYPP dispatches power throughout New York State on a single-system basis and coordinates the development and operation of its members’ production and transmission facilities.

III. FINDING

DOE has assessed the impact that the proposed export would have on the reliability of the U.S. electric power supply system. Based on the above discussion and analysis, DOE has determined that the export of electric energy to Canada as requested by Virginia Power would not impair the sufficiency of electric power supply within the United States and would not impede or tend to impede the coordination in the public interest of facilities within the meaning of section 202(e) of the FPA.

DOE also has determined that this action is among those classes of actions not normally requiring preparation of an environmental assessment or an environmental impact statement and, therefore, is eligible for categorical exclusion under Appendix B to Subpart D, paragraph B4.2 of the revised DOE Regulations implementing NEPA. Specifically, this categorical exclusion is provided for transmission of electric energy using existing transmission systems. Documentation of the use of this categorical exclusion has been placed in this Docket.

IV. ORDER

Based on the above finding, it is hereby ordered that Virginia Power is authorized to export electric energy to Canada under the following terms and conditions:

(A) The electric energy exported by Virginia Power pursuant to this Order may be delivered to Canada only over the following existing international transmission facilities for which assessments of the transmission limits for operation in the export mode have been made:

<u>Owner</u>	<u>Location</u>	<u>Voltage</u>	<u>Presidential Permit No.</u>
Basin Electric Power Coop.	Tioga, ND	230-kV	PP-64
BPA	Blaine, WA	2 - 500-kV	PP-10
	Nelway, WA	2 - 230-kV	PP-36 & PP-46
Citizens Utilities	Derby Line, VT	120-kV	PP-66
Detroit Edison	St. Clair, MI	345-kV	PP-38
	Marysville, MI	230-kV	PP-21
	Detroit, MI	230-kV	PP-21
	St. Clair, MI	345-kV	PP-58

<u>Owner</u>	<u>Location</u>	<u>Voltage</u>	<u>Presidential Permit No.</u>
Eastern Maine Elect. Coop.	Calais, ME	69-kV	PP-32
Joint Owners of Highgate Project	Highgate, VT	345-kV	PP-82
Maine Electric Power Co.	Houlton, ME	345-kV	PP-43
Maine Public Service Co.	Limestone, ME	69-kV	PP-12
	Fort Fairfield, ME	69-kV	PP-12
	Aroostock County, ME	138-kV	PP-29
	Madawaska, ME	2 - 69-kV	PP-29
Minnesota Power & Light Company	International Falls, MN	115-kV	PP-78
New York Power Authority	Massena, NY	765-kV	PP-56
	Massena, NY	2-230-kV	PP-25
	Niagara Falls, NY	2-345-kV	PP-74
	Devils Hole, NY	230-kV	PP-30
Niagara Mohawk Power Corp.	Devils Hole, NY	230-kV	PP-31
Northern States Power	Red River, ND	230-kV	PP-45
	Roseau County, MN	500-kV	PP-63
Vermont Electric Transmission Co.	Norton, VT	450-kV DC	PP-76

(B) Exports authorized herein shall not cause a violation of the terms and conditions contained in existing electricity export authorizations associated with the international transmission facilities identified in paragraph (A) above. Specifically:

(1) Exports by Virginia Power pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-64 (issued to Basin Electric Power Coop.) to exceed an instantaneous transmission rate of 150 MW. The gross amount of energy which Virginia Power may export over the PP-64 facilities shall not exceed 900,000 megawatt-hours (MWh) during any consecutive 12-month period.

(2) Exports by Virginia Power pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-66 (issued to Citizens Utilities) to exceed an instantaneous transmission rate of 50 megawatts (MW). The gross amount of energy which Virginia Power may export over the PP-66 facilities shall not exceed 50,000 MWh annually.

(3) Exports by Virginia Power pursuant to this Order shall not cause the total exports on a combination of the facilities authorized by Presidential Permits PP-21, PP-38, and PP-58 (issued to Detroit Edison) to exceed a coincident, instantaneous transmission rate of 2.2 billion volt-amperes (2,200 MVA).

(4) Exports by Virginia Power made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-32 (issued to Eastern Maine Electric Coop.) to exceed an instantaneous transmission rate of 15 MW. The gross amount of energy which Virginia Power may export over the PP-32 facilities shall not exceed 7,500 MWh annually.

(5) Exports by Virginia Power made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-82 (issued to the Joint Owners of the Highgate Project) to exceed an instantaneous transmission rate of 200 MW nor cause a violation of the following security constrained export limits:

<u>Vermont Total Load (MW)</u>	<u>Security Constrained Maximum Export (MW)</u>
1000	0
900	40
800	90
700	125
600	150
500	170

(6) Exports by Virginia Power made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-43 (issued to Maine Electric Power Company) to exceed an instantaneous transmission rate of 500 MW.

(7) Exports by Virginia Power made pursuant to this Order shall not cause the total exports on the combination of facilities authorized by Presidential Permits PP-12 and PP-29 (issued to Maine Public Service Company) to exceed a coincident, instantaneous transmission rate of 9.8 MW. The gross amount of energy which Virginia Power may export over a combination of the PP-12 and PP-29 facilities shall not exceed 40,000 MWh annually.

(8) Exports by Virginia Power made pursuant to this Order shall not cause total exports on the facilities authorized by Presidential Permit PP-78-1 (issued to Minnesota Power and

Light Company) to exceed an instantaneous transmission rate of 100 MW. Exports by Virginia Power may cause total exports on the PP-78-1 facilities to exceed 100 MW only when total exports between the Mid-Continent Area Power Pool (MAPP) and Manitoba Hydro are below maximum transfer limits and/or whenever operating conditions within the MAPP system permit exports on the PP-78-1 facilities above the 100-MW level without violating established MAPP reliability criteria. However, under no circumstances shall exports by Virginia Power cause total exports on the PP-78-1 facilities to exceed 150 MW.

(9) Exports by Virginia Power made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-61 (issued to Minnkota Power) to exceed an instantaneous transmission rate of 350 MW. The gross amount of energy which Virginia Power may export over the PP-61 facilities shall not exceed 3,000,000 MWh annually.

(10) Exports by Virginia Power made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-63-4 (issued to Northern States Power) to exceed an instantaneous transmission rate of 500 MW.

(11) Exports by Virginia Power made pursuant to this Order shall not cause a violation of the following conditions as they apply to exports over the \pm 450-kV direct current transmission line authorized by Presidential Permit PP-76, as amended by PP-76A:

NEPOOL		
<u>Exports Through</u>	<u>Load Condition</u>	<u>Export Limit</u>
Comerford converter	Summer, Heavy	650 MW
Comerford converter	Winter, Heavy	660 MW
Comerford converter	Summer, Light	690 MW
Comerford converter	Winter, Light	690 MW
Comerford & Sandy Pond converters	All	2,000 MW

(12) Exports by Virginia Power made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-56 (issued to NYPA) to exceed an instantaneous transmission rate of 1000 MW.

(13) Exports by Virginia Power made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permits PP-25, PP-30, PP-31 and PP-74 (issued to NYPA and Niagara Mohawk) to exceed a combined instantaneous transmission rate of 550 MW.

(14) Exports by Virginia Power pursuant to this Order shall not cause total exports on the two 500-kV lines authorized by Presidential Permit PP-10, the 230-kV line authorized by Presidential Permit PP-36, and the 230 kV line authorized by Presidential Permit PP-46 (issued to BPA) to exceed the following limits:

Condition	PP-36 & PP-46		Total Export Limit
	Limit	PP-10 Limit	
All lines in service	400 MW	1500 MW	1900 MW
1-500 kV line out	400 MW	300 MW	700 MW
2-500 kV lines out	400 MW	0 MW	400 MW
1-230 kV line out	400 MW	1500 MW	1900 MW
2-230 kV lines out	0 MW	1500 MW	1500 MW

(C) Amendment of the export authorizations from which the export limits contained in subparagraphs (B)(1) through (B)(11) were derived shall result in a concomitant change to the export limits contained in those subparagraphs. Any request by Virginia Power for change to the export limits contained in subparagraphs B(12), B(13), and B(14) will be considered by DOE after submission by Virginia Power of appropriate information demonstrating a change in the transmission transfer capability between NYPA and Ontario Hydro, NYPA and Hydro-Quebec, BPA and BC Hydro, or BPA and West Kootenay Power.

(D) Virginia Power may commence exports only over those international transmission lines identified in paragraph (A) for which Virginia Power provides DOE written evidence that sufficient transmission service has been obtained for delivery of the exported energy to the border. This evidence can consist of signed letters of agreement for the service between Virginia Power and each Presidential permit holder and should identify specific facilities by name and Presidential permit number.

(E) In scheduling the delivery of electricity exports to Canada, Virginia Power shall comply with all reliability criteria, standards, and guides of the North American Electric Reliability Council, Regional Councils, or independent system operators, as appropriate on such terms as expressed therein, and as such criteria, standards, and guides may be amended from time to time.

(F) Virginia Power shall conduct all operations pursuant to the authorization hereby granted in accordance with the provisions of the Federal Power Act and pertinent rules, regulations, and orders adopted or issued thereunder, including the comparable open access provisions of FERC Order No. 888, as amended.

(G) The authorization herein granted may be modified from time to time or terminated by further order of the DOE, but in no event shall such authorization extend beyond the date of termination or expiration of the Presidential permits referred to in paragraph (A).

(H) This authorization shall be without prejudice to the authority of any State or State regulatory commission for the exercise of any lawful authority vested in such State or State regulatory commission.

(I) Virginia Power shall make and preserve full and complete records with respect to the electric energy exported to Canada. Virginia Power shall furnish quarterly reports to the DOE, within 30 days following each calendar quarter, detailing for each month of the previous quarter: (1) the gross amount of electricity delivered, in kilowatt hours; (2) the consideration received for such energy; and (3) the maximum hourly rate of transmission, in kilowatts. Quarterly reports must be filed regardless of current activity and whether or not deliveries of electric energy have been made. If no transactions have been made, a one-sentence report indicating “no activity” for the previous quarter is sufficient.

Reports shall be submitted to the U.S. Department of Energy, Office of Fossil Energy, FE-27, 1000 Independence Avenue, SW, Washington, D.C. 20585-0305. Properly identified quarterly reports will also be accepted via facsimile at (202) 287-5736 to meet time requirements, but original copies should still be filed at the above address.

(J) In accordance with 10 C.F.R. §205.305, this authorization is not transferable or assignable, except in the event of the involuntary transfer of this authority by operation of law. Provided written notice of the involuntary transfer is given DOE within 30 days, this authorization shall continue in effect temporarily. This continuance also is contingent on the filing of an application for permanent authorization within 60 days of the involuntary transfer; the authorization shall then remain effective until a decision is made on the new application. In the event of a proposed voluntary transfer of this authority to export electricity, the transferee and the transferor shall file jointly an application for a new export authorization, together with a statement of reasons for the transfer.

(K) Exports authorized herein shall be reduced or suspended, as appropriate, whenever a continuation of those exports would impair or tend to impair the reliability of the U.S. electric power supply system.

(L) This authorization shall be effective for a period of two (2) years from the date of this order. Within six months prior to the expiration of this authorization, Virginia Power may reapply for renewal of this authorization.

Issued in Washington, D.C., on July 16, 1998.

Anthony J. Como
Manager, Electric Power Regulation
Office of Coal & Power Im/Ex
Office of Coal & Power Systems
Office of Fossil Energy